THE JOURNAL

OF THE

NATIONAL ASSOCIATION of CHIROPODISTS

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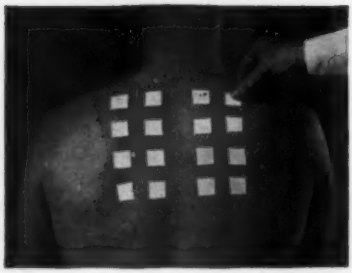

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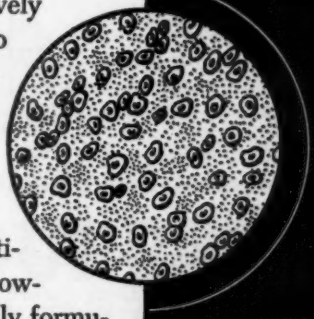

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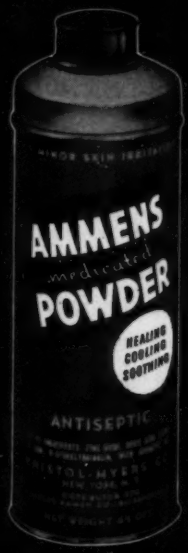

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HYPOTHETICAL RELATIONSHIP OF FOOT IMBALANCE TO RHEUMATIC FEVER

S. J. WIKLER, D.S.C.
Baltimore, Md.

THE purpose of this paper is to discuss the possibility that factors of stress and imbalance in the feet may be of etiological significance in the occurrence of rheumatic fever. As is the case with so many of the degenerative diseases, the exact cause of rheumatic fever is unknown. We have all read and heard of ACTH and Cortisone, which recently have achieved dramatic results in treating some of the degenerative disorders. These therapeutic agents, however, do not "cure" these diseases; they act to relieve effects, not by dealing with causes.

A brief introductory review of the adrenal glands will not be out of place: one adrenal gland is located at the top of each kidney. Each gland is about two inches long and one-half inch thick. About ninety per cent of the bulk of each gland is composed of the cortex or outer covering, and it is this cortex which produces many hormones in which we are primarily interested. Kendall[1] was able to isolate from some of these hormones a steriod which he called Compound E or Cortisone. The cortex of the adrenal gland is dependent on products of the anterior pituitary gland for stimulation and regulation of its own secretory functions. The pituitary hormone most important as a regulator of the adrenal cortex is called adreno-cortico-trophic hormone, or ACTH.

The secretion of the adrenal cortex accelerates the process of oxidation in muscle tissues, when such acceleration is momentarily demanded. It also has to do with muscle strength, sexual development, and with protein, carbohydrate, mineral and pigment metabolism. These hormones also influence other ductless glands, and in general, are so important to life that removal of the gland results in death. In Addison's disease, due to deficiency of the adrenal cortex, the metabolic processes become unable to cope with the demands of even minimal strains or injuries.

Products of the adrenal cortex also have some regulatory function in tissue permeability, enabling areas to be bathed with lymph and permitting the products of infection and inflammation to be removed. These hormones help supply carbohydrates to the muscles for fuel, they help control the relationship of blood components, and enable the body to retain its chemical and physical balances in the face of demands

arising from injury, infection, and physical effort. In short, one of the more important functions of the hormones of the adrenal cortex is to enable the body to respond to stress and strain.

Hans Selye[2] by his brilliant studies has considerably enlarged our knowledge in this field. It is now believed that stress and strain which make demands beyond the capacity of the hormone production of the adrenal cortex may result in the appearance of degenerative diseases which injections of ACTH or Cortisone appear to control. Selye forced rats to excessive energy expenditure by requiring them, for example, to swim to exhaustion. In the initial stages of these experiments, the rats' adrenal glands became swollen, the blood sugar and blood sodium content dropped, and the lymphocytes increased, simultaneously with a lowering of blood pressure. He called this group of reactions the "shock phase." Immediately following this phase there occurred a "counter-shock phase," in which the enlarged adrenals produced more hormones. There was a decrease of lymphocytes, and an increase of blood sugar and blood sodium, with a raising of the blood pressure. The shock phase plus the counter-shock phase are, together, called by Selye the "alarm reaction." In prolonged stress and strain over a period of weeks the adrenal cortex and the body mechanisms appear to become adjusted to the unusual daily regime of excessive strain, in such a way that the alarm stage fades, but a stage of exhaustion eventually develops. Should an additional stress factor be introduced at this time, the animal then relapses into a chronic state of "adrenal shock," and will probably die.

Continuous, unusual stress, it is thus demonstrated, leaves the small animal in a state wherein the metabolic processes cannot combat and dispose of the products of excessive fatigue and strain. The tissues fall into degenerative disease, and death. Although there are no facilities for conducting similar experiments with human beings, it seems reasonable to assume that the reactions of man to unusual and continuous strain may be similar to those of small animals.

Accepting this hypothesis, we may postulate that a great number of degenerative diseases may, in some cases, be due to unusual and prolonged strain of one kind or another. In our modern civilization there are no factors so widespread and important as a cause of prolonged stress and strain to practically every part of the body as are foot imbalance and foot diseases. As the author has argued in a recent paper[3], a large proportion of our population exhibits postural and mechanical abnormalities arising from varying degrees of foot deformity and malfunction. (It should be understood that among shoe-wearing peoples, feet which are subjectively asymptomatic are not necessarily correctly-functioning feet.) The author further argues that such abnormalities set up conditions of severe over-all stress and strain that closely approximate the abnormal conditions suffered by Selye's experimental animals. With a greater consideration of foot abnormalities and foot malfunction, it may be possible to fill some of the etiological gaps in the research of degenerative diseases.

Shoes and Foot Disorders

Children nowadays almost inevitably suffer, to a greater or lesser degree, foot damage from modern shoes, if only because at one time or another their feet will have outgrown a particular pair of shoes, even if all shoes purchased during the individual's infancy and childhood were

of the amplest size at the time of purchase. However, some deformity to the toes is inevitable since the largest modern shoes are rarely as wide as the undeformed foot. But non-constructive size is not the only consideration; as even shoes for two-year-olds have heel lifts. This unnatural heel elevation of the shoe requires rigidity and arched elevation of the central portion also, which in turn creates an unnatural weight-bearing medium in the tarsal and metatarsal areas. The end result is both atrophy of the plantar musculature, and distortion of the foot bones. Consider the feet of those races who never wear shoes; inspecting such feet, one must believe that the Creator intended man's foot to be evenly on the ground, unrestricted and spread out in the metatarsal and toe areas, thereby acting as a strong balancing and supporting base. Modern shoes do not permit any such natural function; instead they provide unnatural weight bearing surfaces, squeeze and deform the forefoot to such a point that the toes have little strength or mobility and are often a deformed mass of atrophied appendages.

Studies by Shulman[4], Hoffman[5], Stewart[6], Hale[7], and Pond[8], among others, all bear out the contention that shoe-wearing peoples suffer far more foot troubles than do non-shoe-wearing races. Actually in the latter, foot trouble is relatively unknown.

Rheumatic Fever

The author believes that foot disorders may very well be a cause of rheumatic fever, which, as is well known, is one of the deadliest diseases confronting children of today. We contend that a child susceptible to rheumatic fever may be a child with poor body mechanics arising from weak and imbalanced feet. This individual has but a small reserve of vitality and energy, is tired and listless, and complains of inconstant aches and pains – which are usually dismissed as "growing pains."

Rheumatic fever is claimed to be the greatest single cause of death (other than accidents) between ages five and fourteen, in the United States, and autopsies frequently reveal that rheumatic fever is an undiagnosed cause of death, indicating the incidence of the disease is even greater than recognized. Sixty per cent to eighty per cent of heart disease occurring under age forty is attributable to rheumatic fever. Although streptococcic infection is not a cause, but rather a precipitator or "trigger" of rheumatic fever cases, nevertheless many authorities agree that a streptococcic infection is not a cause, but rather a precipitator or 'trigger' of rheumatic fever. Still others believe the precipitating mechanism is induced by the immunological reaction of the body to the infection, rather than the streptococcus infection itself.

It is contended that the pathological processes which precede the precipitating factors and eventually culminate in acute rheumatic fever in some children may, in others, cause serious but unrecognized impairment, similar to the stage of continuous stress which Selye terms the "alarm reaction."

If we assume that the early warning symptoms of generalized pathology are in some cases induced by imbalanced feet, then we may further assume that severe additional stress such as a streptococcic infection, an injury, or additional physical responsibilities (such as children starting school at the age of 6) may prove to be beyond the individual's resistance to strain, and may thus precipitate rheumatic fever. This seems logical

reasoning, since rheumatic fever is an acute connective tissues disease which appears typically in immature individuals who have not become inured to constant strain and hardship over a long period. The disease is characterized by toxic and febrile states that resemble the "stage of exhaustion" in Selye's small animals. It may be, therefore, that long periods of stress and strain induced by poor foot mechanics finally exhaust the defensive mechanism ordinarily present against such processes, and thus the body is ready to be triggered into rheumatic fever by any additional stress.

Relative Incidence of Rheumatic Fever

A number of regional studies are available which discuss geographical incidence of the disease. All these studies when interpreted with foot defects borne in mind as possible etiological factors, invariably strengthen the hypothesis here presented. Thus: children brought up in localities where shoes are not customarily worn show a very low incidence of rheumatic fever.

The table appended shows the results of three independent but related surveys conducted by the author. The 36 children of Group A were surveyed for foot structure in a rural village of Mexico, where none of the children had ever worn shoes. The children in Group B were convalescent guests in a home for rheumatic fever victims in Baltimore. A similar number of children were picked at random at a public swimming pool in a working class neighborhood of Baltimore. These latter are represented in Group C. Using the unshod Mexican children as controls, it appears obvious that just as shoes are related to foot deformities, so is there a relationship between foot imbalance and rheumatic fever.

	Group A	Group B	Group C
Severe toe deformities present	0	20	8
Mild to moderate toe deformities	0	16	28
Normal toe-flexing ability	36	3	15
Limited flexion, on none	0	33	21
No demonstrable atrophy of plantar musculature	36	9	17
Excessive to moderate atrophy of plantar musculature	0	27	19

Faulkner and White[9] assert that rheumatic fever occurs ten to twenty times oftener in temperate zones (where children customarily wear shoes) as in the tropics (where few children wear shoes). Some investigators have mentioned climate as the important factor in regional differences in incidence of rheumatic fever, on the theory that streptococcic infections are more common in temperate zones. In "backward" tropical communities where children's shoes are unheard of, rheumatic fever is practically unknown. On the other hand, Bungeler[10] found that in the tropical city of Sao Paulo (where most of the children wear shoes), the incidence of rheumatic fever is comparable to that in large temperate zone cities.

In the United States, E. S. Nichols[11] found only one-fourth as much rheumatic fever in native Florida children (who in rural communities, customarily do not wear shoes) as in northern children who had migrated to Florida (and, of course, brought their already deformed feet and strained bodies with them).

J. R. Paul[12] found that Indian school children in southern Arizona (who usually go barefooted until maturity) had only one-ninth the rheumatic fever of Indian children in Wyoming and Montana (where the subjects, because of the rugged country and climate, wear the white man's shoes).

A. F. Coburn[13] found little rheumatic fever in Puerto Rico (where the children are largely barefoot), but when Puerto Rican children migrate to New York and begin to wear deforming shoes, rheumatic fever in these children is of high frequency.

Of course, the feet of shoe-wearing children are not all deformed or affected to an equal degree. Many parents, especially those with ample incomes, will see that their offspring have new shoes as often as needed, but children of lower-income families frequently have to wear shoes which their feet have radically outgrown. Lee Bivings[14] reports that ninety-nine per cent of new-born babies have disability-free feet (excepting club feet), yet at five years of age, thirty-three per cent of the children in his office practice had imbalanced feet, while this figure increased to sixty-five per cent among clinic patients; i.e., patients from lower-income families. This report is an indication of how rapidly feet become deformed during the first years of life, in shoe-wearing societies. Furthermore, Coburn has pointed out that the incidence of rheumatic fever is twenty times as great in poorer families as in well-to-do families.

In World War II foot disability was a cause for rejecting recruits only when the disability was grossly visible and unusual, hence foot imbalance was present among the new soldiers in nearly the same proportion as among civilians. A recruit with badly imbalanced feet (which perhaps had been subjectively quiescent in civilian life) would be required to engage in strenuous training activities, and such unaccustomed activities frequently appeared to precipitate rheumatic fever at an early stage of training.

Summary

1. Unusual and continuous stresses and strains to the body cause a derangement of adrenal-cortical hormone production which in turn influences the onset of various degenerative diseases.
2. One degenerative disease most likely to attack children is rheumatic fever, which seems to be precipitable by any "last-straw" factor of exhaustion.
3. An important exhaustion-factor which heretofore has generally been overlooked is that caused by recognized or unrecognized foot disabilities.
4. It is demonstrable by a review of the literature that ill-fitting shoes, and consequent foot-imbalance, go hand-in-hand with a high incidence of rheumatic fever (and other degenerative diseases), including many of those in which the symptoms are relieved by ACTH and cortisone.

Conclusion

It is the belief of this author that foot disability and imbalance may frequently be the basic, if unrecognized, cause of many of the systemic diseases, of which heretofore we have not known any definite cause.

It is also the hope of the author to instigate a program of prophylactic foot care embracing a large group of children in an area where the incidence of rheumatic fever is high, hoping thereby to show that proper foot care will cause a lower incidence of the disease. If such prevention

could be proven, we should have a strong basis for arguing that universal foot prophylaxis might radically lower the incidence of rheumatic fever (and perhaps of other of the degenerative diseases).

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ORTHODIGITA*

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Paterson, N. J.

Specialized Pad for Overlapping Second Toe

THIS type of toe is usually associated with an advanced hallux valgus. This is one of the conditions resulting from the first toe forcing laterally, till the second toe has been forced out of its natural alignment. (See figures 6 and 7.) This very fact contraindicates the use of a traction appliance to force the toe back to its normal position. To do so would be to create additional irritation and pressure to other areas (heloma molle or heloma durum on fifth toe would result). The toe is generally *asymptomatic* unless subjected to shoe pressure, and when this happens the toe is exquisitely painful. Our *problem,* then, is to *protect the toe from shoe pressure.* This is done by the use of this special pad. This same pad may be applied to third and fourth overlapping toes.

The progressive "build-up" type of construction is used in preference to attempting to cut the entire pad from one thick layer of felt. This is faster, and easier, permitting greater accuracy in skiving and tapering the aperture, etc.

Making the Pad

1. Starting with a piece of 2 x 3 inch felt 3/16" thick, fold it along its *long* axis in such a way that you get a double piece three inches long and one inch wide. (See figure 1.)
2. In the middle of the fold, cutting *across* it, place two parallel cuts about ¼ or ⅜ inch apart. (See figure 2.) This will constitute the "ring" and the opening it makes in the 2 x 3 felt will constitute the aperture. (See figure 3.) Aperture size should be kept to a minimum, as it can always be enlarged with scissors if necessary. This may necessitate stretching the ring a little more to make it large enough to encircle the toe.
3. Paint both sides of the felt pad with rubber cement, and adhere it to the foot in its proper position (see figure 5). The reason for adhering it to the foot is to make it conform to foot contour and prevent shifting.
4. If required, additional apertures may be cut to accommodate excrescences on distal and proximal interphalangeal joints. Also, the pad should not extend so far that it exerts pressure either on the eponychium distally, or on the tendon of the extensor hallucis longus medially.
5. Apply additional "build-ups" until the toe is adequately protected from shoe pressure. (See figures 6 and 7.) The average pad will require at least one quarter to one half inch build-up. Each addition is coated completely with rubber cement before being put in place, otherwise, when latex is subsequently applied, the pad would become too hard when the latex is dried. Be sure that all surfaces have received a coating of rubber cement. Now apply a coat of liquid latex. This will help the layers to adhere and will give the appliance

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FIG. 1

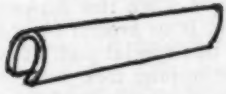

FIG 2

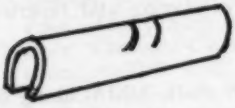

FIG 3

FIG 4

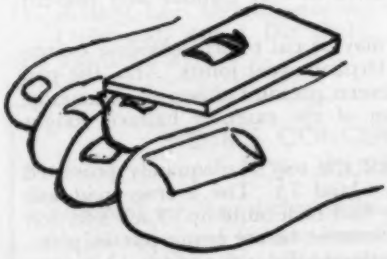

FIG 5

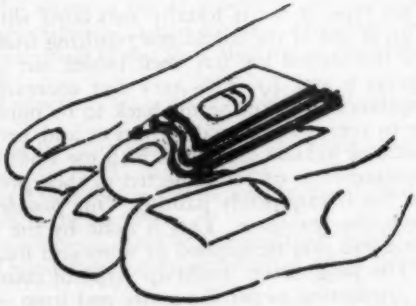

FIG 6

FIG 7

"body." While the pad is still wet, adjust it to the position it should occupy so that it will conform to foot contour and have no tendency to shift. If you are in a hurry before the latex is completely dried, the external surfaces of the pad may be covered with moleskin. This will adhere very well over the pad. Do not cut the moleskin to the size of the pad, but let it extend beyond the pad to the surrounding skin. This will help maintain the pad in its proper position until it has taken on the contours of the foot. When the patient returns a few days later it is trimmed to size.

6. If not already done on the first visit, the pad should be covered with moleskin on the second visit. Rubber cement the moleskin in position felt side down with the pad in place on the foot. Do not trim moleskin short, but allow it to overlap past the edges of pad onto the skin. When the pad becomes worn or soiled, it can be covered with moleskin on top and bottom surfaces.

Observations

In building up this type of protective pad, keep in mind the fact that a pad need not be built up to such a height that it exceeds the height of the prominence it is protecting. Few shoes have room enough for such a pad, and in any event, if the pad is raised to 90% of the height of the prominence, it will *relieve the area* by taking a large proportion of the shoe pressure away from it.

If the pad is found at the next visit to be inadequate, it should be built up. Medication is applied to any open lesions and dressed in the usual way. Only when the pad becomes compressed and hard does it obtain its maximum efficiency. When patient returns the pad is removed from the foot. The patient is shown how to remove and replace it. In very prominent joints the ring can be cut away later without danger of slippage.

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VARICOSE VEINS: BASIC ANATOMY

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INTERPRETATION of varicose vein tests[1] and proper treatment[2, 3, 4] requires a knowledge of certain embryological and anatomical variations in the veins of the lower extremities. With few exceptions,[5, 6] the descriptions presented in surgical textbooks are two skimpy and those in anatomical texts too detailed and confusing. In this paper an attempt will be made to describe the practical anatomy—the usual arrangement of the lesser and greater saphenous systems and the common variations resulting from arrested embryological development. The communicating veins and other anatomical factors of significance in etiology and of importance in the interpretation of tests and in proper treatment will be discussed.

Short Saphenous Vein

The short saphenous[5, 6] is the first vein in the body to develop in the embryo and represents the postaxial vein of the hind limb bud. It originally opened into the internal iliac vein by way of the sciatic and gluteal veins, but in the course of intrauterine development in man, it becomes changed into a short vein of varied ending. By the 25mm. stage of human embryos the anastomoses on the inner side of the thigh between the long and short saphenous veins have developed. In the 35mm. human embryo this connection is constant and practically all the blood from the lower leg goes into the long saphenous channel. Still later, due to the growth of the thigh, the short saphenous pours its blood into the long saphenous just above the level of the knee. Eventually it empties into the popliteal vein at the level of the knee in the majority of instances, but is subject to many variations resulting from an arrest in normal embryological differentiation.

The short saphenous vein begins approximately two centimeters above the external malleolus and is formed by confluence of veins from the lateral portion of the dorsum of the foot, lateral malleolus, and the lateral side and back of the heel. It courses straight up the back of the leg, varying from 1 to 4 mm. in diameter and receiving tributaries from the lateral side of the leg. It usually penetrates the superficial fascia in the upper part of the leg to run between deep and superficial fascia to the popliteal space where it joins the popliteal vein. Just before joining the popliteal vein it may receive the posterior superficial vein of the thigh. This vein communicates with the long saphenous system or with deep posterior muscular veins of the thigh, and may represent the connection of the short saphenous veins with the internal iliac vein by way of the sciatic and gluteal veins, which occurs early in embryologic life. The valves of the short saphenous system are bicuspid almost without exception and are usually situated just below the entrance of tributaries. Their position and number vary from four to thirteen with an average of eight, depending upon the number of tributaries. The distance between the valves varies from .5 to 15 cm. with an average of 4 cm. There is no significant relation between the number of valves and the age or sex of the subject.

Direct anastomosis between the short saphenous and the deep veins of the leg, most commonly the peroneal veins, does occur by way of a few

small veins. When the termination of the short saphenous is low in the thigh (9.7 per cent of all cadavers dissected by Kosinski) these communicators are usually much larger. Through its ever-present connections with the long saphenous system, by 2-4 superficial vessels, blood in the short saphenous system enters the deep veins of the leg indirectly. The direction of the blood flow is from the short to the long saphenous system as proved by examination of the valves in the anastomotic branches, by experimental dye injection and X-ray studies. Similar studies have proven conclusively that the normal direction of blood is from the superficial to the deep system, except in the foot.

Long Saphenous Vein

Phylogenetically the long (greater) saphenous vein is insignificant in all mammals except horse, ape, and human. In other mammals the vein follows the saphenous nerve and artery in the subsartorial (Hunter's Adductor) canal. In man, only the nerve persists in the old route. The artery is a small branch that ends subcutaneously below the medial condyle and the vein remains superficial to join the femoral high up.

The long saphenous is formed by the confluence of veins at the medial end of the dorsal venous arch of the foot and ascends throughout the length of the limb in the subcutaneous fat. It passes just in front of the medial malleolus, crosses the lower third of the medial surface of the tibia and ascends 2 cm. behind its medial border. At the knee it is just posterior to the medial malleolus of the femur, about a hand's breadth behind the medial border of the patella. From the knee it courses straight up the thigh for two-thirds of its length, then upwards and medially to join the femoral vein in the fossa ovalis about 4 cm. below the inguinal ligament. It averages 3-4mm. in diameter and the normal vein in the calf may be as large or larger than in the thigh. The name is derived from the Arabic (Saphenes-visible) since below the knee it is conspicuous in the normal living. Sherman[7] found that "the main stem of the long saphenous lies deep to the deep fascia somewhere along its course." Most anatomists and surgeons refer to such deep segments as accessory saphenous veins.

The anatomy of the long saphenous vein and its branches is not constant from patient to patient, or even on the two limbs of the same patient. The position of the fossa ovalis (saphenous opening) is an important anatomical feature in the treatment of varicose veins and fortunately is fairly constant. In a thin person it is easy to find 1 cm. medial to the pulsation of the femoral artery in the crease of the groin. When the superficial landmarks are distorted because of obesity and the pulsation of the femoral artery is not palpable, the fossa ovalis will be found 2 cm. below the junction of the inner and middle thirds of a line connecting the anterior superior spine of the ilium and the pubic tubercle.

In a series of 21 extremities dissected in the anatomical laboratory by Edwards,[8] the upper median corner of the fossa ovalis was found to lie 1.5 cm. on an average (0-4 cms.) inferior to, and 2.5 cm. on an average (2-6 cms.) lateral to the tubercle of the pubis. The fossa is present only in man and is created by the saphenous vein passing through the fascia lata in search of the femoral vein. It is free and sharp above and below. Grant suggests that the vein dragged down the lower margin of the fossa to its present level because it commonly hooks over it. Its lateral border

is falciform or crescentric and blends with some areolar tissue (cribriform fascia) that covers the opening; hence it is not sharply defined. Its medial border is continuous with the fascia covering the underlying pectineus muscle and as such it passes behind the femoral vessels.

The saphenous vein receives a variable number of branches in the leg and thigh, a most important reason for careful dissection and ligation close to the bulb. The tributary veins in the fossa ovalis are variable in number and arrangement and identical in the two legs in only 50% of the cases. The three most constant branches are the three superficial inguinal veins which accompany the superficial inguinal branches of the femoral artery; the lateral superficial circumflex iliac, the superficial epigastric, and the superficial external pudendal vein. These may enter the medial femoral cutaneous or femoral vein intsead of the long saphenous vein. The veins from the medial and lateral (and posterior) superficial aspects of the thigh often form a common trunk, the lateral femoral cutaneous, which usually joins the greater saphenous in the fossa. It may communicate with the lesser saphenous or join the femoral vein. The average length of the long saphenous vein in 124 extremities was 84 cm.

Communicating Veins

Sherman,[7, 8] Pratt[9] and Linton[2] have stressed the importance of communicating, perforating or perforator veins between the superficial and deep circulations of the lower extremities. Some perforators pierce only the superficial fascia, others go along the intermuscular septa, through the muscles or through the deep crural fascia. The perforators in the thigh are small and unimportant in health, but, by valvular incompetence after high ligation may cause recurrence of varices. The most common of the thigh perforators is the mid-Hunter perforator, at the junction of the middle and lower thirds of the thigh 10-15 cm. above the adductor tubercle. Perforator veins on the medial aspect of the ankle and foot are frequent but seldom of significance. The genicular plexus is constant but only of little significance in varicose conditions.

The clinically significant perforators are relatively constant and readily located by reference to some anatomical landmark or in terms of distance from the sole of the foot. Sherman[8] divides them into five main groups:

1. Medial aspect of the leg.
2. Lateral aspect of the leg.
3. Lateral aspect of the foot.
4. Short saphenous system.
5. Muscular perforators in the calf.

The communicators at the junction of the middle and distal thirds of the leg to the posterior tibial vein, at the junction of the proximal and middle thirds of the leg surface of the tibia are considered most constant and important. Kinton found an average of 4-6 perforators anteriorly within 3 cms. of the medial border of the tibia.

Vein Valves

The valves in 124 extremities[5] varied in number from 10-20, depending somewhat upon the number and position of the tributaries. Valves and tributaries are more numerous in the leg than in the thigh. There is always a valve in the femoral vein and another in the saphenous vein just distal to the sapheno-femoral junction. The arrangement of the valves

proximally is less constant and infinitely more important, for these are the first to receive the shock of the increased intra-abdominal pressure, a pressure capable of elevating venous pressure to 54 cm. of water. Nicholson and others have found that in 25 per cent of the subjects examined in the anatomic laboratory there were two valves between the saphenous vein and the right auricle; in 50% of the subjects there was but one valve; and in the remaining 25 per cent there were no valves, so that in the last 25% the first barrier to retrograde flow of blood in the inferior vena cava is the loosely supported valve in the long saphenous vein. Etiologic significance of this variation has been suggested but conclusive proof has been difficult to obtain.[10] An obstructive anomaly of the opening of the left common iliac vein has also been described.[11, 12]

The wall of the vein is composed of 3 distinct layers of tissue-intima, media and adventitia. The intima is composed of a single layer of endothelial cells, somewhat shorter and broader than in the artery, and in larger veins such as this one, a variable amount of fibro-elastic connective tissue. The amount and distribution of fibro-elastic connective tissue and smooth muscle fibers in the media varies greatly in different veins and may be a factor in localization of varices and in different portions of the same veins. The muscle fibers are fewer in proportion to fibro-elastic tissue then in a corresponding artery and are arranged irregularly so that those parts of the vein are less equipped to stand distending forces. The adventitia is actually larger than in an artery of similar size but is relatively inelastic fibrous tissue sheath and has little to do with active changes in the capacity of the vein. It is a defense against forces which tend to overdistend the vein—a force of six atmospheres is required to disrupt the healthy saphenous vein.

The valve leaflets appear in the third month as hyperplastic ridges of endothelium usually just distal to the entrance of a tributary. A layer of mesenchymal tissue then invaginates itself between the endothelial cells and the whole leaflet is turned in the direction of the blood flow. The leaflet continues to grow until it is long enough in the adult to permit vein dilation to almost normal size before it becomes incompetent. The endothelium of the opposing edges of the leaflet becomes thicker, elastic tissue may be mixed in with fibrous tissue. Although the valve leaflets are quite thin, a pressure of 2 atmospheres is required to disrupt them. Venous valves are usually bicuspid, but unicuspid and tricuspid valves are occasionally encountered. The major axis of the vein and the aperture between the valve cusps is constantly parallel to the skin, so that the elastic force of skin and fascial planes constantly tends to press the valve cups one to the other.

Along with formation of valve leaflets the vein wall undergoes striking changes. Just proximal to the valve the media thins out and the diameter is increased to form the valve sinus. The base of the leaflets is reinforced by a circular band of smooth muscle making the valve sinus an area of comparative weakness. In the normal vein the relative size of the wall above and below a valve may be as much as one to five. Pathological dilatation of the vein usually occurs first in the area of the valve sinus and gives rise to the "inverted milk bottle" type of varix.

Deep Veins

Before superficial varicosities are eradicated the patency of deep veins must be determined. The deep veins of the lower leg, anterior tibial,

posterior tibial and peroneal unite behind the knee to form the popliteal vein which becomes the (superficial) femoral. The last accompanies the corresponding artery through Hunter's Canal, passing behind the artery at the apex of the femoral triangle to lie at its medial side in the femoral sheath. About 4 cm. below the inguinal ligament it is joined on its posterior side by the deep femoral vein and is now called the common femoral which is joined on its anterior surface by the long saphenous (sometimes by the medial and lateral femoral cutaneous) and passes under the inguinal ligament to become the external iliac. The deep femoral vein,[13] sometimes a cause for confusion in nomenclature, is formed in the lower third of the thigh, usually is superficial to the corresponding artery. It runs posterior to adductor longus, is separated from the medial surface of the femur by the origin of the vastus medialis, passes behind the femoral artery and vein and enters the femoral vein as previously described. It receives tributaries corresponding to the muscular and perforating branches of the deep femoral artery, and through these it communicates with the popliteal vein below and the inferior gluteal vein above. Increased muscle pressure on the deep veins because of faulty foot mechanics has been suggested as a factor in the production of varicosities.

Arterial Circulation

Arterial insufficiency[14] may necessitate modification in the treatment of varicosities. Hence, a knowledge of the arterial anatomy and the various signs and tests for arterial status is a basic requirement.

Summary

1. The practical anatomy of the superficial veins of the lower extremity has been described.
2. Common anatomical variations resulting from arrested embryological development have been pointed out.
3. The significance of the communicating veins has been stressed.
4. Anatomical features of possible etiological significance in the production of varicosities have been discussed.

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ARTHRITIS AS A PUBLIC HEALTH PROBLEM

LEONARD A. SCHEELE, M.D.*
Washington, D. C.

ARTHRITIS, rheumatism, and related ailments qualify as a public health problem. This group of diseases is the greatest single cause of protracted illness. Their prevalence is many times greater than that of any other chronic disease. Rheumatism is close kin to poverty and the vicious circle of disability and dependency. A goodly proportion of arthritic patients are receiving no care—or poor care.

For many years, physicians interested in this problem have been convinced that expert treatment can alleviate or arrest rheumatic disorders and prevent severe disabilities. They have been convinced, too, that medical research in this field needs expansion in basic studies and clinical and epidemiologic investigations. Out of this professional concern and conviction has emerged the American Rheumatism Association to focus attention on the problem and provide a forum for discussion and interchange of experience.

The national movements against tuberculosis, venereal diseases, cancer, and heart disease began in the same way. But, despite the promise of such beginnings, progress in these fields was slow until two specific conditions had been met.

First, specific advances in research had to come, stimulating further exploration of neglected areas and encouraging wider application of existing knowledge and skill. Second, public demand for expanded research and services had to increase, bringing to bear on official and voluntary agencies inexorable pressures for action. The result was the combination of public and private effort which characterizes our American plan to solve these critical health problems.

During the past 18 months, those conditions have been largely met for a forward move against arthritis. The work of Dr. Philip S. Hench and Dr. Edward C. Kendall on cortisone and ACTH has been a precipitating event in scientific medicine which brings us to the verge of a new era in research and practice in this field. The full significance of this event will not be apparent for many years to come.

However, we can already see one result in increased demand for expanded public health action. That demand is expressed by the American people through their representatives in Congress. Two proposals are being considered by Congress at the present time. First, the House of Representatives has approved $3,600,000[1] for the Public Health Service's 1951 program to expand research on cortisone, ACTH, and related compounds. Second, legislation is now before Congress,[2] and has been passed unanimously by the Senate, which would authorize the Public Health Service to establish a program of research, aid to research and professional education, and health services in arthritis, rheumatism, and other metabolic diseases.

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*Surgeon General, Public Health Service. From a speech delivered at a session of the American Rheumatism Association, San Francisco, Calif., June 23, 1950.

[1]This sum was subsequently reduced to $2,500,000 as part of the total cut of $550,000,000 in the Federal Budget, 1951, as directed by the Congress.

[2]Subsequently passed by the House, and approved by the President, August 15, 1950.

The Public Health Service and our advisory groups of experts have given a great deal of serious thought to the entire problem. The conclusions drawn, therefore, represent the main points of agreement by many individuals, all of whom are earnestly and actively concerned with solutions of the multiple and intricate problems of arthritis. Probably none of us think that decisions of today can stand long in such a rapidly developing and changing field; but, if science and society present us with opportunity, we in turn must present an orderly and sound plan for action.

The Opportunity Is Unique

The nature of arthritis and the present status of medical knowledge about the disease offer a unique opportunity to develop, both in research and services, programs that are integrated with efforts in many other fields.

I stress this point because the experience of the Public Health Service shows that exclusive emphasis on disease categories tends to have a restrictive effect on research and to encourage the development of unbalanced services.

Fortunately, the work of Hench and Kendall, Thorn, Albright, their predecessors and their co-workers—a whole generation of effort—has made virtually impossible a narrow research program on arthritis and rheumatism. Within less than a year, sufficient evidence has accumulated to show that research in cortisone and ACTH will be research in the total field of chronic disease, as well as in mental illness and some acute diseases.

Obscure in origin and resistant to treatment, the so-called degenerative diseases – cardiovascular-renal disorders, cancer, arthritis, rheumatism, and metabolic diseases in general (an endless list!) –have challenged the best thought in research and medicine for several generations. Until last year, however, there had been no convincing evidence to provide scientists with a clue to a common factor in the causation of such diverse conditions as rheumatoid arthritis, status asthmaticus, nephritis, and rheumatic fever. Diseases not previously known to be associated with hormonal imbalance must now be studied in the light of their relation to hormones. Moreover, clues to such phenomena as immunity, anaphylaxis, allergic response, and shock await intensive exploration.

Because the new leads are promising, more scientists will be attracted to basic studies of human biology. In their study of disease states, they will search for a common cause, as contrasted with the former emphasis on specific etiology and localized pathology.

Research and scientific medicine have been moving gradually toward a new theoretical and clinical synthesis. With the advance of biochemistry and biophysics, there have been vast improvements in the methods, measurements, and instruments available to medical research. As a result, closer integration of the various scientific disciplines has occurred. Just such an interdisciplinary approach played an important part in the accomplishments of Hench, Kendall, Slocumb, and Polley.

Many scientists and the public have placed major emphasis on the search for specific causes or for cures of specific diseases. Up until now, it has been difficult to convince society that investments in basic research could yield far-reaching results, not only in a single disease, such as rheumatoid arthritis, but in a variety of conditions which affect a large proportion of the world's population.

It would be a tragedy if, in our eagerness to exploit our new advantage over arthritis, we failed to develop the broadest possible research effort in biology and a wide range of diseases. The sooner we break the barriers of specialism in research, the sooner we shall find definite answers to specialized disease problems. This is the unique opportunity which is now presented to medical scientists.

The same integrated approach is essential in the development of services for persons who suffer from arthritis and rheumatism. Specialists of the New York Postgraduate Medical School and Hospital said 10 to 12 years ago: "If a patient with acute rheumatoid arthritis . . . did have at his disposal proper hospital facilities, comparable to those for tuberculosis, where he could receive fresh air, good food, sunshine and rest, plus all the medical and physical therapy measures we know to be of value in rheumatism, it is certain that the incidence of deforming arthritis would be markedly reduced."

The same basic requirements in facilities and services are needed today—not only for the millions of arthritic cripples, but also for the additional millions crippled by accidents and by other chronic diseases. In our planning for care of the chronically ill and disabled, arthritis and rheumatism loom as a major problem. Services in that field will be all the better, all the more effective, if they are planned as an integral part of the community's total effort for the chronically ill.

Prospects for Research

The Public Health Service has broad authority to conduct and to aid research on the physical and mental diseases and impairments of man. We do not need a special act of Congress to initiate investigations or aid in a particular field. We do, however, need adequate funds to assure a well-balanced program, and these funds often are not appropriated until the Congress creates a specific program in a particular field.

Last summer, recognizing the great importance of the first reports on cortisone and ACTH, I appointed an arthritis and rheumatism study section to advise the Public Health Service on how we could best foster research and health services in this field. Dr. Hench is the chairman of this study section which includes nine other experts—all outside the Government. Other study sections, established several years ago, also have been especially interested in arthritis and rheumatism, notably the sections on endocrinology and metabolism and gerontology.

The Public Health Service has also consulted frequently with other scientists, with other Federal research groups, and with the manufacturers of cortisone and ACTH. Throughout the year, our five National Advisory Councils—on general medical research, cancer, heart disease, mental health, and dental research—have discussed thoroughly the problems of metabolic diseases as well as of cortisone and ACTH.

In a joint meeting last February, the councils made specific recommendations to the Public Health Service for immediate action in safeguarding the research effort on these new drugs and similar compounds. At that time, medical investigators in many parts of the country had so increased their demands for cortisone and ACTH that manufacturers could no longer supply the drugs for research without cost. The advisory councils commended the manufacturers for having distributed cortisone and ACTH free of charge to qualified investigators throughout the early stages of investigation.

In the opinion of the councils, the most important single question in medical research at the present time is how to make sure that the drugs, and similar new substances, will continue to be available for investigators. The councils, therefore, urged that research be expanded in hospitals, medical schools, universities, public and private laboratories. Expanded research in hormonal compounds should be in addition to research in other important fields—not at the expense of the other programs.

During the past few months, we have awarded 102 financial grants, totaling nearly $1 million ($901,445) to institutions outside the Federal Government for research in cortisone and ACTH.

If 1951 appropriations to the Public Health Service permit us to increase our support of research in this particular area, we and our advisors believe that about two-thirds of the sum should go into grants for clinical studies, and the remainder into laboratory investigations.

There is an enormous job waiting to be done in the laboratory. The production of cortisone has been increased to the point where one of the manufacturers can now distribute the drug in limited quantities to the Nation's hospitals. Even so, we must continue the search for new raw materials. The supply of the present starting material for cortisone is limited in any case. So also is the source of ACTH, and this drug also requires standardization. New raw materials or short-cuts in synthesis would bring us nearer to adequate supplies for the millions of arthritic patients who might benefit from hormonal therapy, if the current research program proves their ultimate safety and value. We have not reached that goal yet. At a market price of (roughly) $100 per gram, cortisone and ACTH still pose major problems in medical economics.

Synthesis of other steroids and related drugs is another urgent need. As the antibiotics multiplied rapidly in a few years after penicillin was first proved effective, so we should expect many new hormonal drugs which may even supplant cortisone and ACTH. Studies are already under way on several steroids that may give valuable leads.

Obviously, intensive study must be devoted to the biological effects of cortisone, ACTH, and other steroids. New substances must be screened in the laboratory to determine their physiological activity, toxicity, and relationships with other substances.

Clinical studies offer an almost endless list of promising clues. Our best thought on this aspect of research with cortisone and ACTH, however, leads us to stress the need for broad studies in human biology—as well as for study of the therapeutic effects of these substances in specific diseases.

We must, in fact, encourage scientists to use these new tools as a means of advancing knowledge of normal man and his physiological processes in health. There is, indeed, too little research on this positive line. Intensive study of steroid metabolism may uncover basic mechanics that account for the difference between health and disease. A common factor in the metabolic process, for example, may be responsible for maintaining normal functions in various organs not previously believed to be related, or some one series of chemical reactions may be essential for maintaining many substances normally present in the body. Much fundamental study must be done before such conclusions are reached, but the possibilities are tremendous.

Major emphasis, of course, must be given to clinical studies of the effectiveness of cortisone and other hormonal substances in various diseases. Practical and humanitarian reasons dictate such an emphasis.

Cortisone and ACTH probably are here to stay. The indiscriminate use of these drugs, however, must be prevented. They cannot be prescribed or administered as safely as can aspirin, although the public has been led to believe that this is so.

With the wider distribution of cortisone, new problems will arise. Careful clinical management of patients who receive the drug in the Nation's hospitals will be a tremendous responsibility on physicians. The utmost care in noting and controlling side effects will have to be exercised by competent clinicians. All of us know—best of all the discoverers and pioneers—that our knowledge is far from complete as to the effects and the effectiveness of these new drugs.

There is so much promise and so much enthusiasm, however, that we must press on to perfect our knowledge and techniques through careful clinical investigations. Naturally, emphasis will be placed on arthritis and rheumatism in clinical studies of cortisone and ACTH. Many of the investigators who have received grants from the Public Health Service are working in that field. But others are studying the effects of the drugs on allergic hypersensitivity, chronic sinusitis, diabetes, renal function, cirrhosis, and hypertensive vascular disease.

Studies have already shown that ACTH may terminate an episode of acute rheumatic fever; and with suitable continuation therapy, in conjunction with antibacterial agents, may, in fact, stop further progress of the disease. These preliminary results lead us to stress the importance of further work in this area. If effective therapy is developed for rheumatic fever, science and society will make a tremendous forward move in child health and in the prevention of a vast amount of disabling heart disease in adults.

Other leads which need to be followed are in the fields of cancer, other heart diseases, and psychiatric disorders—as well as in a wide variety of metabolic disturbances.

Up to now, I have been dealing entirely with the prospects for research specifically related to cortisone and ACTH. I do not want to give the impression that we are not equally concerned about the development of a broad research program on the rheumatic diseases. We are deeply concerned. Discovery of new scientific principles in arthritis and rheumatism has, indeed, been so rare in the past century that until cortisone and ACTH were reported, one could scarcely call our advance in this field "progress."

What, for example, is the status of diagnosis? What scientific data have we on the psychic components in arthritis and rheumatism? What are the relationships between rheumatism and occupation, age, climate, other environmental and social factors? Much work also remains to be done in nutrition, physical medicine, rehabilitation, and a dozen other fields related to the causes, prevention, and cure of arthritis.

In recent years, the Public Health Service has been supporting several long-term studies on some of these basic problems in arthritis and rheumatism. We feel that, generally speaking, the most valuable contribution which the Public Health Service can make to medical research is

the support of investigations which require substantial financial aid over a number of years. Especially is this necessary in clinical studies of chronic diseases. Adequate series of cases must be developed and followed, since the human organism develops more slowly in both its normal and pathologic processes than do laboratory animals. Thus, in some diseases the answers may not be found until after the scientist who initiated a study, has himself succumbed to man's universal fate.

The following studies illustrate the types of research in arthritis and rheumatism that the Public Health Service is supporting. Two years ago, Dr. Paul Holbrook of the University of Arizona began a study of amino-acid metabolism of rheumatoid arthritis. We expect the project to continue two more years.

Last year, a 5-year study was launched by Dr. Walter Bauer and Dr. Jerome Gross of Massachusetts General Hospital. This is a study of derangement of mesenchymal tissues in aging and rheumatic disease. Beginning this year, supplementary grants will be made for the use of ACTH in this project.

Dr. Roland A. Davison of Stanford University is now in the second year of a project on steroid metabolism in spondyl arthritis. Dr. John H. Talbott, of the University of Buffalo, is conducting a study of the pathogenesis and treatment of gout, using various drugs. Dr. Ernest D. Gardner, at Wayne University, is continuing a basic study of physiological processes in movable joints and structures.

In relation to psychic components in arthritis and rheumatism, Dr. Franz Alexander of the Chicago Institute of Psychoanalysis is conducting a 4-year study of arthritic patients at Michael Reese Hospital. The study seeks to delineate the psychodynamic pattern of arthritic patients and its relations to physiological responses.

Research and Service Goal

The goal of a program for research and health services in arthritis was defined for society very simply 2,000 years ago: That is, "to make the lame to walk and the crooked straight."

None of us can forget that goal for we have seen many examples of the crippling effects of rheumatism. We have seen, too, the almost miraculous improvements in some of the few individuals who have access to the best modern care.

At least 200,000 persons in the United States are totally and permanently disabled by arthritis and rheumatism; another 800,000 are partially disabled. And it is estimated that another 6 million have some form of rheumatism or arthritis. These estimates may be low, because there are no reliable data on the incidence of these diseases in large population groups which lack elementary medical and health services.

The Public Health Service has long been seriously concerned about this massive suffering in our midst. I have reported on some of the steps we have taken recently to deal with the basic biological and medical problems involved. I have mentioned also the proposals in Congress for expanding Federal aid to research on cortisone and ACTH, and for establishing a broad arthritis and rheumatism program.

The Public Health Service is eager to do its part. Our six institutes in the National Institutes of Health are ready and willing to collaborate in such an effort. Our Division of Chronic Disease is ready and willing

to help. States and communities plan services for rheumatic sufferers. These plans might include the development of ambulatory services, home care programs, and rehabilitative services for rheumatic patients.

The Public Health Service, however, is only one small unit in the total Nation-wide effort that will be needed. We hope to be able to join with the American Rheumatism Association and with our colleagues in other voluntary agencies and institutions in a Nation-wide offensive against arthritis and rheumatism.

Reprinted from Public Health Reports, Vol. 65, No. 42, Oct. 20, 1950.

THE ALARM REACTION

RECENTLY, I have become aware of the work of Hans Selye and his theories concerning an alarm reaction, the general adaptation syndrome, and the diseases of adaptation. Although he has not mentioned the common cold per se in any of his papers that I have read, from my understanding of his theories I feel strongly that the explanation of many of the mysteries of the common cold lies concealed in the pathologic physiology displayed by the body in its effort at defense. In 1946, in a comprehensive review of the subject, Selye defines the alarm reaction as "the sum of all nonspecific systemic phenomena elicited by sudden exposure to stimuli to which the organism is quantitatively or qualitatively not adapted." He further states: "It is becoming increasingly more obvious that certain physiologic mechanisms, in which the endocrine system plays a prominent part, help to raise resistance to damage as such, irrespective of the specific damaging agents. Some of the most important diseases (such as hypertension, nephrosclerosis and the rheumatic diseases) may represent by-products of the endocrine reaction, which are at play in the general adaptation syndrome." In his detailed discussions of the syndrome Selye cites symptoms and signs that are extreme and unmistakable. For example, the shock, which is described as the primary phase of the alarm reaction, he lists tachycardia, decrease in muscular tone and body temperatures, formation of gastric and intestinal ulcers, hemoconcentration, anuria, edema formation, decrease in blood chlorides, acidosis, a transitory rise followed by a decrease in blood sugar leukocytosis and discharge of adrenalin from the adrenal medulla. He states, "This phase may last anywhere from a few minutes to 24 hours, depending on the intensity of the damage inflicted, but unless the termination is fatal it is always followed by the counter-shock phase. The latter is characterized by a reversal of most signs characteristic of the shock phase. Thus there is blood dilution and increase in blood volume, increase in blood sugar, and blood chlorides, alkalosis, diuresis, and often a rise in body temperature." After discussion of the stages of resistance and exhaustion he states, "These observations . . . led to the conception that any non-specific noxious agent which causes sudden general systemic damage elicits the shock phase of the alarm reaction, probably because it liberates toxic metabolites from the tissues. The theory was proposed that if the damage is not too severe and hence permits survival, the damaging agent (perhaps through a hypothetical toxic metabolite produced under its influence) acts on the anterior lobe

of the piptuitary and stimulates it to discharge adrenotropic harmone. This in turn stimulates the adrenal cortex to produce an excess of corticold harmones which help to raise the resistance of the body and elicit the characteristic counter-shock phenomena. . . . This defensive endocrine response is valuable inasmuch as it facilitates adaptation to stress (e.g., infection, intoxications, nervous commotions, cold, etc.), but the resulting endogenous hormone overdosage may become the cause of certain cardiovascular, renal and joint diseases. Thus developed the concept that many of the most common maladies of man are diseases of adaptation, that is to say, the by-products of abnormal adaptive reactions to stress." Since the foregoing was published in 1946 a great volume of experimental work has been conducted using pituitary adrenal corticotropic hormone (ACTH), and the literature has been filled with reports of the astonishingly good results obtained.

From "The Alarm Reaction," by John M. Brewster, Captain (MC), USN, in West Virginia Med. J., December, 1950.

FORMALDEHYDE TREATMENT IN WARTS

WARTS resistant to ordinary treatment may be removed by formaldehyde ointment applied at home for two or three months.

The method is especially suitable for large or numerous growths about the nails where electrosurgery or radiotherapy might leave unsightly deformity, and for palmar or plantar warts, if lesions are numerous and irradiation would take too long, or when a course of radiotherapy has already been given and further treatment is contraindicated.

Even if not entirely destroyed, periungual lesions may become smaller or plantar warts fewer, so that other forms of therapy are practical.

To most patients, Francis W. Lynch, M.D., of the University of Minnesota, Minneapolis, and Irvine M. Karon, M.D., of St. Paul give 15 gm. of a mixture containing 3 or 4 cc. of formalin in Aquaphor, if lesions appear refractory, either before or after trial, formalin content is increased to 6 cc.

The ointment is rubbed gently with a cotton-tipped applicator twice daily for a week or two, then once every one to three days, often enough to keep tissue hard. No dressing is needed. The surface of the lesion is shaved every week or two, usually by the physician.

To avoid problems that might result from sensitization, this treatment is not given to chemists, medical personnel, and other workers with formaldehyde. Salve should not be applied to common warts except on the tough skin of hands and feet.

Warts were eradicated in 32 of 56 cases, although more than four months of application was required for a patient with 23 palmar lesions. Plantar growth disappeared in 68% of reviewed cases, periungual in 81%, and common warts in 76%. Outcome in others was apparently good but not positively known.

F. W. Lynch and I. M. Karon
Arch. Dermat. & Syph. 62:803-813, 1950

Chiropodists

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THE

JOURNAL

OF THE

NATIONAL ASSOCIATION of CHIROPODISTS

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL
BY THE NATIONAL ASSOCIATION OF CHIROPODISTS

DR. WILLIAM J. STICKEL, *Editor*
3500 FOURTEENTH STREET, N. W.
WASHINGTON 10, D. C.

Address all communications intended for publication, matter relating to advertising, business or subscriptions to the Editor.

CHIROPODISTS RECEIVE PROFESSIONAL CLASSIFICATION

AFTER several years of negotiation the executive secretary finally concluded the matter of obtaining a revision of the semi-professional listing in the "Dictionary of Occupational Titles" which is compiled by the U. S. Department of Labor and used extensively by all government agencies, especially the Bureau of the Census and the Civil Service Commission.

A copy of the final communication concerned with this matter follows:

"This is in reply to your letter of June 16, requesting further clarification of the classification of Chiropodists in a future release of the DICTIONARY OF OCCUPATIONAL TITLES.

The definition of Chiropodist will be classified in the professional code group, along with Dentists and related occupations, in the next revision of the Dictionary.

Sincerely yours,

MARTIN F. CARPENTER
Acting Assistant Director"

HOSPITAL, INSTITUTIONAL, AND INDUSTRIAL AFFILIATION INFORMATION REQUIRED

MEMBERS with hospital, institutional or industrial staff affiliation are requested to send the following information to the Executive Secretary:

a — Your name and address
b — Name and address of hospital, institution or industrial firm with which affiliated
c — Brief description of duties
d — Number of hours in attendance
e — Are you compensated for your services?

If you have already forwarded any of the above requested information, please do not send it again.

COPE REPORT ISSUED DEFINING CHIROPODY'S PLACE IN BRITISH NATIONAL HEALTH SERVICE

THE Cope Report has been published by a committee created to investigate chiropody in Great Britain in order to determine its place in the National Health Service. The following excerpts are taken from the report: (number preceding each note is the number of the paragraph contained in the report).

155 — Being unsatisfied with any of the existing definitions the committee adopted for purposes of the National Health Service, the following definition of chiropody:

> "Chiropody means the treatment of superficial ailments of the feet and the maintenance of the feet in good condition."

on the assumption that chiropodists employed under the N.H.S. would be qualified to distinguish any ailments which require the attention of surgeon or doctor.

156 — In the National Health Service treatment should be confined to the feet.

158 — The SMAE Institute were invited to give evidence but declined to do so.

163 — Under the National Health Service chiropody is provided through the hospital service on specialist advice and is given to patients who come to the hospitals in the normal course and are found to require chiropody treatment.

Also in London, Manchester, Aberdeen, Edinburgh and Glasgow where N.H.S. foot hospitals are operated as open clinics.

Also certain Local Health Authorities in England have foot clinics where treatment is available for a small charge, under section 28 of the National Health Service Act, 1946.

175 — Evidence was received from three main bodies whose membership at December 31, 1949, was as follows:

(1) Society of Chiropodists, 3,792, increasing by 250 annually.
(2) Joint Council of Chiropodists, 1,570.
(3) British Incorporation of Podiatrists, Masseurs and Electrotherapists, 542 and 70 Student members. (A large proportion of these trained by correspondence.)

178 — The proportion of men in the profession was approaching half the total.

179 — Conclusions on supply and demand:

(1) There should be a chiropodist in every general hospital.
(2) There appears to be a considerable demand for local authority clinics. More general provision of this service may lessen the demand for chiropodists in private practice.
(3) Any increase in demand for chiropodists arising from extension of hospital facilities can be met from current supply of chiropodists trained at whole-time schools.

198 — Conclusions on Training:

(1) There should be a minimum educational qualification for entry to training, approximately as follows: *England and Wales,* General Certificate of Education with certain obligatory passes. *Scotland,* Senior leaving Certificate with certain obligatory passes.

(2) That training given in part-time courses cannot equal in value that of a full-time course.

(3) That standard of training in schools recognized by the Society of Chiropodists is satisfactory provided that experience in hospitals or clinics is available.

(4) That after qualification an additional six months' period of work under an experienced chiropodist is essential before a person should be allowed to practice independently.

203 – No specific qualification is required for employment in the National Health Service as a chiropodist.

199 to 201 – Training at schools not recognized by the Society of Chiropodists: The following gave evidence:

(1) Royal College of Chiropody.

(2) Aberdeen Foot Hospital.

202 – Conclusion regarding above schools:

"That it is improbable that these schools can provide an adequate variety of clinical material for teaching purposes."

Information was also received regarding the Scottish National College but this did not alter the conclusion on the matter, and as stated in Para. 198, the Committee was not satisfied that training given in a part-time course equals that given in a full-time course.

203 – No specific qualification is required for employment in the National Health Service as a chiropodist.

204 – The qualifications examined were as follows:

(1) Society of Chiropodists.

(2) Joint Council of Chiropodists.

(3) British Incorporation of Podiatrists, Masseurs and Electrotherapists.

(4) Royal College of Chiropody.

(5) Aberdeen Foot Hospital.

218 – Conclusion on qualifications:

(1) That Examinations of the Society of Chiropodists should be open only to those having attended a full-time course of study.

(2) That the committee was not satisfied that qualifications offered by other organizations provide an adequate criterion of competence for employment under the N.H.S.

219 – RECOMMENDATIONS.

(1) That Chiropodists should be regarded as Medical Auxiliaries in the National Health Service.

(2) No person to be employed in the N.H.S. as chiropodist unless appropriately qualified.

(3) A register of persons qualified to be employed under the N.H.S. as chiropodists should be set up and maintained.

(4) That until permanent arrangements are made persons trained at schools recognized by the Society of Chiropodists and have passed the Society's qualifying examination should be regarded as qualified for employment under the N.H.S.

(5) That persons trained at schools recognized by the Society of Chiropodists and have passed the Society's qualifying examination should be eligible for registration by the Central Council for Medical Auxiliaries.

(6) That as soon as possible chiropodists should be employed in all general hospitals and in special hospitals and clinics where required.

(7) That local Authorities should be enabled to provide chiropody in the N.H.S., possibly under Section 28 of the N.H.S. Act, 1949.

(8) That the number of training places for purposes of the N.H.S. should be kept under review in the light of development of facilities for chiropody in the N.H.S. service.

(9) That training given in schools recognized by the Society of Chiropodists should be recognized as suitable preparation for qualification for employment in the N.H.S. until such time as a course is officially prescribed.

(10) That hospital authorities in areas where recognized schools of chiropody exist should arrange that facilities for clinical instruction are available to students from schools.

EMPLOYEE HEALTH MAINTENANCE PLAN PAYS DIVIDENDS

"CONSTRUCTIVE MEDICINE" pays big dividends, The Seamen's Bank for Savings, founded in 1829 and one of New York City's oldest savings banks, has found in the course of ten years' experience with an employee health maintenance plan which differs widely from the usual industry health program.

The dividends, largely attributed to the medical care program, include:

1. A sensational drop in employee absenteeism over the ten-year period from 7 per cent (the national average is about 6 per cent) to 2.27 per cent.

2. A rise in on-the-job efficiency indicated by the fact that it is no longer necessary to hire 15 extra employees during the summer vacation period.

3. Better health for everybody in the bank, shown by reduced need for surgical and medical care as well as by the decrease in absenteeism.

4. Good morale and lack of employee-management controversy.

Every applicant for work at the bank must go to the clinic for a thorough pre-employment physical examination which involves extensive laboratory tests, chest X-rays, a blood count and, if he is over 40 years old, an electrocardiograph test. At least two consultants see each patient.

After the initial check-up, it is a matter of individual choice whether or not the employee uses clinic facilities.

There is no limit set on use which the employee and members of his or her immediate family may make of clinic facilities. The bank carries insurance covering clinic costs up to $50 per employee, and meets the additional charges, which amount to between 1 and 2 per cent of payroll. So also does the bank pay for the total hospitalization, medical, and surgical insurance for all employees and their families. The expenditure is looked upon as neither charity nor paternalism. Rather it is classed with such items as good office lighting and annual vacations. All make for efficiency on the job.

Should any necessary hospitalization or surgery involve costs not met through insurance, the employee pays the bill. So also does he pay for dentures, eyeglasses, and the fitting of glasses, although treatment of eye diseases, and dental prophylaxis and X-rays are included in the clinic services for which the bank pays.

Grace Clinic emphasizes the family doctor relationship. Complete individual records are kept. They cover not only laboratory findings but also facts about the employee's home, work, and community situation that may have a bearing on the state of his health. Members of the family are encouraged to use clinic facilities, for considerations of the home have been found to make up the main reason for absenteeism and subnormal performance on the job. The aim is to discover symptoms and advise remedial steps before real illness, or even the drag on the job which often precedes illness, is experienced.

Strictest confidence is observed, a large element in the success of the Seamen's plan. Appointments for clinic visits are made through the personnel director, who is the only company official with whom the clinic communicates about a case. Even he knows no more than the patient wishes to disclose unless the clinic believes some change should be made in the work situation. Another important element in success of the plan is its democracy. A vice president must wait his turn at the clinic.

It is recognized that other companies can follow the Seamen's Bank's plan only if similar facilities are available, or can be developed. Seamen's officials believe that management may well take the initiative.

RETIREMENT AT 65

A PATIENT from Waterloo, Iowa, has brought up a point on which I have felt strongly for some time, namely, forced retirement of business executives at the age of 65. I suppose that this practice, which is prevalent in many corporations, has one advantage — it allows earlier promotion of younger men. I am also sure that many men who reach the age of 65 are no longer fit to carry on their duties. I am sure, however, that you will agree with me that one cannot use any age limit as a criterion of when a man is or is not fit to carry on. With the modern advances in medicine, age 65 is no longer considered as old as it used to be. Many men are really in their prime at that age and stay that way for five, 10 or even 20 years more. It seems to me that a campaign could be started among corporations and in medical schools and other universities to offset previous practices in this regard. In its place, such large institutions might have a committee which would judge as to the fitness of every person as he approaches the age of 65. If the committee decided that a man had all his faculties, he would be kept on in his position as long as he retained those faculties. To avoid possible complaints, this committee should be composed of both older and younger men. As a corollary, such large institutions would do well if they would insist that those approaching the age of 65 should have thorough physical examinations at stated intervals, at least once a year.

Leon Unger, M.D., Chicago, J.A.M.A., December 23, 1950.

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Anyone selected for this position must have (in addition to knowledge — ability and training) vision, judgment, professional honesty, healthy skepticism and a sense of humor. If you can answer some of the above questions in the affirmative and are interested in serving the profession in a field other than practice, write as indicated below giving complete information regarding experience, biography and what you can offer.

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A growing realization of these facts helps to account for the increasing popularity of chiropodists or, as some prefer to call them, podiatrists. There is no question but that there is a very definite need for the kind of services provided by chiropodists. In one medical journal it is pointed out that "pedal disabilities constitute a vast problem and a correspondingly vast demand for relief." It is said that statistics compiled by the United States Public Health Service show that approximately 90 per cent of all people in this country are afflicted with some form of foot ailment. Figures presented in a recently published chiropody textbook are somewhat more conservative. Here it is stated that foot troubles in adult life have been variously estimated as occurring in 80 per cent of women and in 60 to 70 per cent of men.

Aside from increasing public approval, chiropodists are proud of the increasing recognition being accorded them by the medical profession. For example, chiropodists are to be found on the staff of diabetic clinics, including the famous New England Deaconess Hospital, directed by Dr. E. P. Joslin. As remarked by Tarara, physicians are turning more frequently to the chiropodist for aid in the treatment and care of the feet of diabetic patients. The same seems to hold true in the case of patients with occlusive vascular disorders. Also indicative is the fact that a chapter in an authoritative text on peripheral vascular diseases is written by a chiropodist associated with the Mayo Clinic in Rochester.

A reflection of this growing status is seen in the high ideals set forth in the code of ethics of the National Association of Chiropodists and affiliated state societies. As remarked by Rakow, chiropody has advanced to the stage where it has been described as a branch of medicine which cares for the needs of the human foot.

As is evident from the textbooks and publications, the field of chiropody is far broader than is generally realized. Far from being limited to the treatment of corns, calluses, plantar warts and ingrown toenails, the modern chiropodist is trained to recognize and treat various dermatological diseases, infections, ulcerations and other conditions of the foot. He also possesses considerable knowledge of the physiologic and structural disorders of the foot and methods for treating them.

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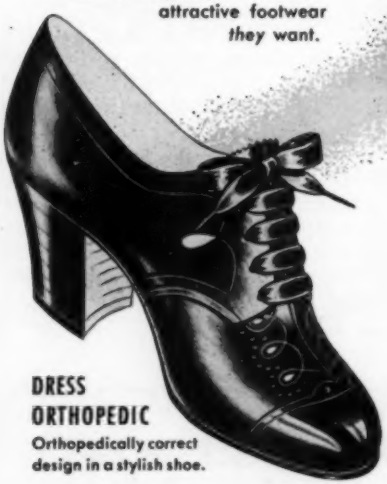

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BOOK NOTICES

NEW ROENTGENOLOGICAL TEXT ANNOUNCED

DR. IRVING YALE of Ansonia, Conn., has announced that his new book entitled *"Clinical and Roentgenological Interpretations in the Extremities* will be available about October 15, 1951. It will contain more than 400 pages, 250 illustrations and a very extensive bibliography.

The book contains five chapters, as follows:

1. *Foot and Leg Anatomy*—and Physiology with emphasis on motion and mechanics of the foot.

2. *Method of Diagnosis and Case History*—with complete consideration of objective and subjective symptoms.

3. *Diagnostic Tests and Apparatus*—such as skin, circulatory, neurologic and muscle tests.

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The pre-publication price is $12.00. If the book is ordered after September 1, 1951, the price will be $15.00. Send remittance with order to Chiropody Literature, 88 Main Street, Ansonia, Conn.

SOCIAL SECURITY INFORMATION

TWO EXCELLENT sources of complete information concerning the Social Security Act are available in the following publications:

"Social Security 1950 Explained." An authoritative, plain-written, and complete explanation of the new pattern of social security, providing an integrated treatise of the Social Security Law as it stands after the new amendments. There are charts and tables, plus a topical index. In all, 128 pages. Price $1.00. This can be obtained from the Commerce Clearing House Products Company, 214 N. Michigan Ave., Chicago 1, Ill.

"What Will Social Security Mean to You?" Price $1.00. This can be obtained from the American Institute for Economic Research, Great Barrington, Mass.

NEW BOOKS IN ACTINIC SERIES ANNOUNCED

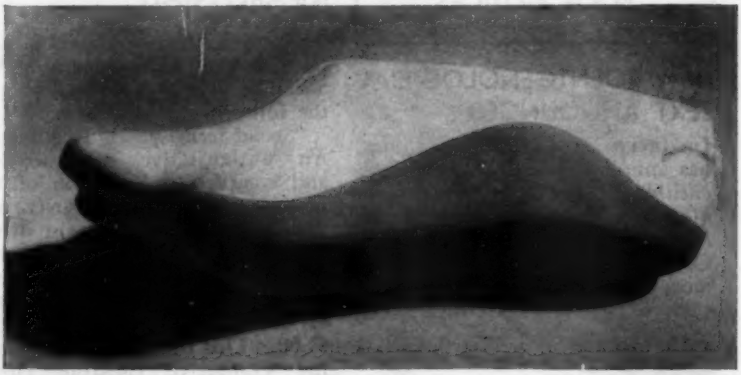
SEVERAL new books in the Actinic Series of practical, authoritative and inexpensive textbooks have been announced by the General Editor, C. E. Kemp, F.Ch.S., Head of the School of Chiropody, Chelsea Polytechnic in London, England. The titles now available are as follows:

Vol. I: Verruca Pedis, by P. J. Read, F.Ch.S., Lecturer in Therapeutics, The School of Chiropody, Chelsea Polytechnic.

Vol. II: Corns and Callosities in the Fourth Cleft, by Henry Trill, F.Ch.S., Chairman, Research Committee, Society of Chiropodists.

Vol. V: Latex Technique and Its Application to Chiropody, by F. A. Drew, F.Ch.S.

Vol. III: Chiropody Instruments, Their Use and Maintenance, by C. E. Kemp, F.Ch.S.



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In Preparation:

Vol. IV: Onychocryptosis and Associated Conditions, by Ian S. C. Anderson, M.Ch.S., Clinical Teacher, The School of Chiropody, Chelsea Polytechnic.

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CHIROPODY

THE FOLLOWING book review was published in "Industrial Medicine and Surgery," May 1951 *(Editor's note).*

"The Essentials of Chiropody" by Charles A. Pratt, Member of the Chartered Society of Physiotherapy. Second Edition. London, H. K. Lewis and Co., Ltd., 1949, 156 pages. Price 10s 6d.

Many are the painful feet encountered among industrial employees. The managements of certain establishments have deemed it wise to include a chiropodist among the industrial health personnel to survey the workers' needs in the area of their pedal ills. In addition, the staff chiropodist has carried out certain minor treatment that has enabled the worker to be more comfortable on the job.

Pnysicians, as a rule, are unfamiliar with the functions or skills of chiropodists, and at times have derogated this group. However, the Judicial Council of the American Medical Association has stated that "General opinion seems to be that chiropody fairly well satisfies a gap that the (medical) profession has failed to fill."

This little book gives the reader a good knowledge of the anatomy of the foot, the skin, and the foot arches. Discussion of footwear, toe deformities, minor wounds, corns, and hyperidrosis provide valuable information for the treatment of these physically localized but generally disabling conditions. *If for no other purpose, a perusal of this work will familiarize the plant practitioner with another ancillary discipline whose exponents can assist in rendering care to the whole man. They should be utilized.* (Italics ours.)

BOOK REVIEWS

Health Examinations for Executives. Prepared jointly by: The Medical Division, Health and Welfare Division, Policyholders Service Bureau, Metropolitan Life Insurance Company, 1951, Paper Brochure, pp. 59, Free.

In industrial medicine there are no yearly new models. There may be continual improvement or instead there may be continuing neglect. On the improvement side is impetus to the health examinations for executives. This does not represent newness. What is new is the size of the collision between industrial medicine and the realization of past neglect of executive examinations. In any comprehensive industrial health program, equal opportunities should be extended the lowliest janitor and the highest executive. But it is a well-established practice that any and all workers in any hazardous work should be accorded particularized protective medical services. Long such have been extended to pliers of those occupations involving silica, lead or radioactive isotopes. Now comes the eye-opener that the executive is engaged in hazardous activities calling for health conservation of high order.

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MEMBER A C E

The Metropolitan Life Insurance Company has sighted the peculiarly perilous plight of the executive, and has filled this brochure with convictions that not possibly may be ignored. There is no other side to the story, and no rejoinders are in order. In 1950 this company provided 18,955 executive examinations in plants of all sizes from below 25 to over 500. The considerations that led to these examinations and the results therefrom constitute this report. What is an executive? This varies. In one plant all foremen and upward in the organization were examined. In another all persons paid salaries at or above $7,800 became executives. Likewise the scope of the examination varied as to age and situation, but always what was sought was sufficient information for a genuine appraisal. In general the recommendation is that the older the executive the oftener the examination. The quality of the commendable examination is reflected in the charges made. A near average cost per examination in one company is $85.00, but the maximum is $300, and the median is $30.

This brochure anticipates almost every need for information and almost every potential objection. It covers the desirability of confidential relations at all times, the nature of reports to be made to the company's medical director, acceptable types of forms, follow-up procedures, functions of the personal physician, approaches to the company's executives by its president, procedures in the examining clinic, summary of findings in selected instances, and statistical arrangements of significant observations.

The last section of the new brochure is devoted to a list of cooperating clinics by states. While these appear as the consulting clinics for the Metropolitan Company, it may be believed that in most instances the same clinics and individuals may be available to other organizations desiring high skill in the safeguarding of the executive's health.

Injuries to the Ankle, by J. Grant Bonnin, M.B., B.S. (Melbourne); F.R.C.S. (England); Orthopaedic Surgeon, Central Middlesex Hospital; Late Orthopaedic Registrar, West London Hospital; Acting Registrar, Royal National Orthopaedic Hospital; Orthopaedic Surgeon, E.M.S., White Lodge Hospital; Lieutenant-Colonel, R.A.M.C.; Orthopaedic Adviser, South East Asia Command; Hunterian Professor, Royal College of Surgeons. 412 pages; illustrated. Grune & Stratton, New York, N. Y., publisher, 1950. Price $8.50.

This interesting book covers its subject thoroughly. It is filled with timely information concerning all types of injuries to the ankle, but for most readers this information is buried in a minute description of how these injuries occur. Thus, the work is at once restricted to the

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research-minded reader and thereby loses much of its potential value. It is to be hoped that the average practicing physician, the radiologist, and the resident will read this book as well as the orthopedist but it is feared that the author has made his treatise too technical to attract this group of readers. Chapter 3 is especially useful, in showing a positive method for differentiating sprains from ruptures of the ligaments. The author uses the term "sprain" in the sense of an unruptured ligament, or, as we say, "strain." This reviewer has used the "strain radiograph" for several years, and to this single method of examination is credited the almost total lack of so-called chronic sprains developing from acute injuries. This book is of great value in providing a ready source for explanation of this method of examination. In so well illustrated a book there should have been some diagrams illustrating methods of this type. The description of the actual performance of these tests on the patient could also have been clearer for in actual practice this is not as easily performed as the terms "inversion" and "eversion" lead one to assume.

There is an excellent historical chapter followed by a detailed and well-illustrated description of the anatomy of the ankle. There follows a minutia of details concerning the mechanism of fractures and sprains which makes up three-quarters of the book. This will undoubtedly come to be the authority in English on this particular subject. As the author points out in his preface, the glossary should be read first, as many of the terms used in the book differ from our usual conceptions. This volume will undoubtedly be well received among orthopedists and should be on every hospital and reference library's shelf.

Diathermy, The Use of High Frequency Currents, by Stafford L. Osborne, B.P.E., M.S., Ph.D., Professor and Chairman, Department of Physical Medicine, Northwestern University Medical School. Publication Number 91, American Lecture Series. 113 pages; illustrated. Charles C. Thomas, Publisher, Springfield, Ill. Price $3.

This book presents in a concise manner the use of all types of high-frequency currents in the treatment of pathologic processes. Conventional, short wave, and microwave diathermy are all well described and a short chapter is included on the principles of surgical diathermy. The indications and contra-indications for each type of diathermy are well defined and the technics of their application for each part of the body are clearly described and admirably illustrated. This book will prove extremely useful as a reference for all physical therapy technicians and physiatrists and will serve as a handy guide to all physicians who have occasion to prescribe the application of high-frequency currents.

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ABSTRACTS

INDUSTRIAL MEDICINE —THE MEDICAL PROFESSION'S STEPCHILD?

For several years this writer has been privileged to serve as chairman of the Missouri State Committee on Industrial Health. During this time, we have met many industrial physicians from these parts and throughout the United States. Added impetus has been given to the development of industrial medicine by the rapid strides in the specialty and by the ever-increasing industrialization of our entire country. When we hear reports that St. Louis ranks No. 7 among hypothetical targets for enemy A-bombs (in case of an all-out war), it gives Missourians an idea of Missouri's industrial importance. Most of us who are indigenous, perhaps subconsciously, have always considered Missouri as a state of vast and diversified agricultural pursuits, with exploitation of our natural resources as an important adjunct. However, the statistical truth is that Missouri is one of the more important industrial states. Discouragingly enough, the medical facilities for providing adequate industrial health programs have not kept pace with our state's present status in industry. Among the members of the medical profession, there is a lack of interest in this field and there is a general apathy among practitioners concerning the need for a better brand of industrial medicine. This fact is best illustrated when post-graduate and other educational projects concerning industrial medicine fall flat on their face —for want of an audience—whenever presented in Missouri. Several programs have been arranged which should have had better attendance and though the quality of the presentations admittedly was high, due to the lack of interest the performances were practically failures. Missouri physicians are not unusual in this respect, if we may judge by reports from other parts of the country in which they record small attendance and very little interest. Most recently, we read the lamentations of another state chairman of industrial health whose experiences coincided exactly with these observations. Why should industrial medicine be the medical stepchild? Is it because there is not enough money to be made? Or, is it because industrial medicine does not present the research challenges of general practice or of the other specialties? Perhaps it is because the opportunities and advantages of industrial medicine are not widely enough known and understood to be stimulating. While it is true industrial physicians ordinarily do not make

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fabulous fortunes in this field, it is equally certain this specialty does present financial rewards which are not niggardly, actually they are satisfactory. And, while the problems usually are not those of life-saving glamour (such as the medical student's dream of finding the cause and cure of cancer), there are many enigmas in industrial medicine, the solution of which would do much for the lives and the health of thousands of our citizens. Perhaps it is then that the field of industrial medicine is poorly understood, as an explanation for the dearth of interest shown by our profession. As our country becomes industrial to a greater extent, it seems shortsighted for our medical leaders, the molders of medical thought, not to exert more pressure in developing this medical specialty. As matters stand today, there is a woeful lag in this direction. From all appearances, industrial medicine is the neglected stepchild of our profession.

"Editorially Speaking," Jackson County Med. Soc. Weekly Bull., April 14, 1951.

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M. Ann. District of Columbia, Dec. 1950.

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H. Luskin
J. Bone & Joint Surg., Jan. 1951

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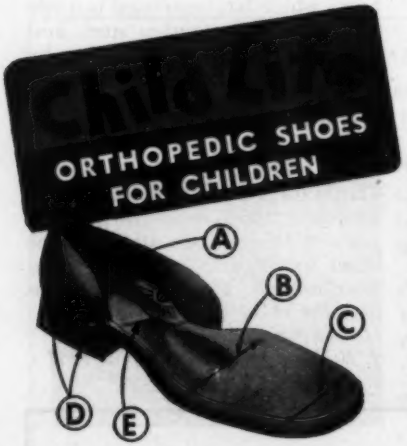

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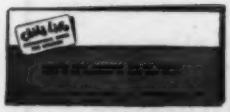

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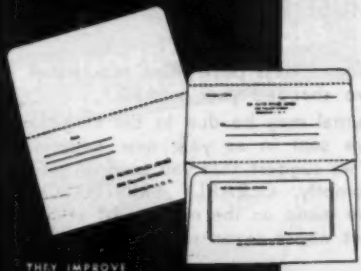

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DIAGNOSING OCCUPATIONAL DISEASES

WE FIND frequent reason to complain because our doctor friends in the general practice of medicine make diagnosis of occupational diseases without knowing anything about industry. They often make the diagnosis on a patient's statement. As a rule, physicians in general practice do not know how to get from an industrial worker the proper information regarding his occupation. The diagnosis is often pulled out of a hat, and a compensation claim is made because of a snap diagnosis made by the process of elimination. The truth is that we in industry should develop in-plant procedures whereby we see the large proportion of all illness, occupational and non-occupational, among employees. If there is any question of the differentiation of occupational from non-occupational disease or injury, we should be able to make it. We should get all the evidence obtainable.

Robert A. Kehoe, M.D.
The Medical Bulletin, published by Standard Oil Company (New Jersey), Jan. 1951

SUN EXPOSURE

TANNING is often impossible for those with fair skin and blue eyes. Even dark-skinned people are easily over-exposed and the combination of coal tar products with ultra-violet light in anyone can be dangerous. Tanning lotions prevent passage of ultra-violet rays to the skin and are called chemical parasols. But combination of chemical parasols with cosmetics such as perfume or hair dye may increase response to ultra-violet rays. Sun exposure should be avoided when taking medicine, particularly of the coal tar variety. Aspirin is of this latter category. Exposure to those parts to which other chemicals have been applied should also be avoided. An ice cold mixture of equal parts of vinegar and water is recommended for sunburn. Boiled starch paste or a teaspoon of boric acid in a pint of ice water will also help sunburn.

—*"Hidden Dangers in Sun Tan," by Herman Goodman, M.D., in Your Life, June, 1951; abstr. in Medicine in the News (Schering), May, 1951.*

NORWICH COMMUNITY PLAN FOLDERS AVAILABLE

MEMBERS desiring quantities of small folders used by the Norwich Plan for Community Foot Health Service may now obtain them at ten dollars per thousand. There are three types, all directed toward carrying a foot health message to children:

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Notice of change in address should be received six weeks before the change is to become effective. Old and new addresses should be given.

Articles are accepted with the understanding that they are submitted solely to the JOURNAL.

Manuscripts must be typewritten, double spaced, and an original copy must be submitted. Reference should give name and initials of author, volume, page, month and year of publication in the case of periodicals, and publisher and place and year of publication in the case of books. Illustrations must be clear photographs. Glossy prints are preferred. Drawings must be made in black ink on heavy paper or cardboard. Any illustrations should bear the author's name and be numbered in the order in which they are referred to in the text. Illustrations must not be pasted on the manuscript. Legends should be placed on a separate sheet. Tables are not illustrations and should be numbered separately.

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REMINDER—SEND ANNUAL DUES TO YOUR STATE SECRETARY OR TREASURER

THE N.A.C. fiscal year ended May 31, 1951. Dues for 1951-52 were due June first. Members are requested to forward their checks as soon as possible to their respective State Society Secretary or Treasurer.

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MISCELLANEOUS

CONFERENCE ON AGING

THE University of Michigan announces its Fourth Annual Conference on Aging was held in Ann Arbor, July 11-13. Rehabilitation of the older handicapped person was the topic of this year's conference, with special emphasis upon the theme that "All Are Needed." American and foreign authorities will be available to discuss the questions raised by the working conference. Attention will be directed to medical, psycho-social, economic and vocational aspects of retaining the over 40 workers in the labor force and the role of these workers with reference to mobilization. Exhibits on the preventive and restorative phases of rehabilitation are planned. The conference is under the co-sponsorship of the Institute for Human Adjustment, School of Medicine, School of Public Health and Extension Service of the University of Michigan, the Office of Vocational Rehabilitation of the Federal Security Agency, and the Michigan Department of Vocational Rehabilitation.

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EDUCATION FOUNDATION ELECTS OFFICERS

AT the first annual meeting of the corporation of the American Medical Foundation the following offi-

This is your invitation to attend the

Thirty-Sixth Annual Convention

Missouri Association of Chiropodists

President Hotel, Kansas City, Mo.

October 6-7, 1951

We will present excellent speakers among whom are:

RICHARD L. SUTTON, M.D., Lecturer and Professor of Dermatology, Kansas University, Medical College and author of many books.

GARRETT PIPKIN, M.D., outstanding lecturer on orthopedics.

JACK STERN, D.S.C., Chicago, Ill., will lecture on several important subjects relating to chiropody.

TABLE CLINICS: There will be twelve table clinics which will help the chiropodist in every-day-practice.

Other well known speakers will be announced later.

Please see the next issue of the Journal for a complete program.

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cers were elected: president, Dr. Elmer L. Henderson of Louisville, president of the American Medical Association; vice president, Dr. Harvey B. Stone, of Baltimore; secretary and treasurer, Dr. Donald Anderson, secretary of the Council on Medical Education and Hospitals.

The purpose of the Foundation is to promote the art and science of medicine and the betterment of the public health by providing or aiding in the providing of financial aid to recognized schools or institutions of medical education responsible for the education and training of the medical manpower of the nation.

The Board of Directors were informed by Dr. Louis H. Bauer, chairman of the Board of Trustees of the American Medical Association, that the American Medical Association would absorb all the expenses of the Foundation so that none of the money contributed will be used to meet overhead expenses.

The Foundation was established in December, 1950, at the meeting of the American Medical Association in Cleveland, when the Board of Trustees announced an appropriation of one-half million dollars as the nucleus of the fund. Other contributions have been received since then, including one of $100,000 from the California Medical Association. It was announced at the meeting of the Board of the Foundation that each physician is being asked to contribute at least $100 annually to the Foundation for redistribution to the medical schools of the country.

FOOT CARE IN INDIA

THE following paragraph was contained in a letter recently received by an American chiropodist from one of his patients:

"We were in Bombay the other day and saw something that reminded us of Dr. Clark. As we came out of the hotel we were accosted by a character who carried a little handbag. On the bag was printed the fellow's name, then under it was printed 'chiropodist' with the further advice that corns were pared, toenails clipped, etc. We had no immediate need for his services but we watched him and sure enough he soon had a customer. The customer sat down on the curb, took off his shoes and the 'chiropodist' went to work. I would have given a five dollar bill to have had my camera but that is always the way, unless you carry a camera all the time here you miss a lot of things. Anyway that bird sure had the problem of office overhead solved."

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ANOMALY

I HAVE seen large companies, well able to afford the best of medical service, limp along with accident treatment as the only medical service available to workers. And I have seen small companies, with a necessarily limited budget, practice the very best of industrial medicine. *—From "Auditing Industry's Medical Department Facilities and Administrations," by C. Richard Walmer, M.D., at Industrial Hygiene Foundation's 15th Annual Meeting.*

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ORGANIZATION NEWS

RHODE ISLAND

A REGULAR meeting of the Rhode Island Chiropodists' Society was held June 20, 1951. The official annual banquet and installation of officers was held. Dr. R. Warnock was presented with life membership in the Society and a certificate of merit was presented to Dr. F. F. Fisher for his long and untiring services to the organization.

Dr. S. H. Kouffman presented his brother, the outgoing president, with a plaque.

CALIFORNIA

A REGULAR meeting of the California Association of Chiropodists, Southern Division, was held June 18, 1951 at the Hollywood Roosevelt Hotel. Scientific chairman Dr. Dale W. Austin presented two interesting films—the N.A.C. color strip sound film produced by the Visual Education Committee and one on gait abnormalities produced at the Kabat-Kaiser Institute.

F.A.A.C. AWARDS RESEARCH PLAQUE

AT THE Ohio College of Chiropody graduation held in Cleveland on June 2, 1951, Dr. Martin Cole, President of the American Academy of Chiropodists, presented a plaque to graduate Victor L. Kupps for outstanding research during 1950-51. Dr. Kupps' major project consisted of tracing epiphyseal de-

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BONDS

velopment through a series of x-rays on subjects ranging from one to eighteen years of age.

MISSOURI

THE Kansas City Association of Chiropodists held its regular meeting April 30, 1951 at the Hotel Continental. Dr. C. B. Footlick, Convention Manager of the Missouri Association of Chiropodists, announced that the Annual Convention would be held at the Hotel President in Kansas City, October 6-7, 1951. Among the outstanding lecturers scheduled to appear are Dr. Richard Sutton, noted dermatologist and author of several books on that subject, Dr. Garrett Pipkin, orthopedic surgeon, and Dr. Jack Stern of Chicago. Other speakers will be announced later.

The following officers of the Kansas City Association were elected:

President, Dr. E. A. Allen
Vice President, Dr. Sam Smith
Secretary-Treasurer, Dr. A. Robinson

Dr. F. M. Peters was elected N.A.C. Council member for the Missouri Association.

OKLAHOMA

GOVERNOR Johnston Murray of Oklahoma has announced the reappointment of Dr. Howard H. Johnson of Enid as a member of the Oklahoma State Board of Chiropody Examiners.

CALIFORNIA COLLEGE ELECTS OFFICERS

THE Board of Trustees of the California College of Chiropody has announced the election of officers for 1951-52. They are as follows: President, Dr. M. C. Nuddleman; Vice President, Dr. L. M. King; Secretary-Treasurer, Dr. I. Rothman. At the recent meeting of the California Association of Chiropodists, Drs. Leo N. Liss and Paul Young were elected to four-year terms as members of the Board of Trustees of the college.

TESTIMONIAL DINNER FOR DR. GOTTLIEB SCHEDULED

MEMBERS of the profession in Southern California have announced that a testimonial dinner will be tendered A. Gottlieb, M.D., teacher, surgeon, Professor Emeritus and former Dean of the California College of Chiropody. All N.A.C. members are invited to attend this affair in honor of Dr. Gottlieb which will be held Saturday, September 29, 1951, at the Hollywood Roosevelt Hotel in Hollywood, Calif. Tickets are $5.00 per person which includes tax, gift, entertainment, etc. Please mail your check and reservation to Dr. Emma Anderson, 1155 Stears Dr., Los Angeles 35, Calif.

FIFTH ANNUAL SEMINAR SPONSORED BY CALIFORNIA COLLEGE

THE Board of Trustees of the California College of Chiropody have announced that the Fifth Annual Seminar sponsored by the college for members of the National Association of Chiropodists will be held in San Francisco, November 9-11 and in Los Angeles, Nov. 12-14, 1951. Members in all Western states, Canada and Hawaii are invited to attend.

Dr. Charles S. Ormond of Oakland, Calif., past president of the college, is serving as Registrar for the seminar and Dr. D. Von Draska of Inglewood, Calif., member of the college Board of Trustees will handle arrangements in Los Angeles. The subject selected is "Mechanical Orthopedics" and the lectures and demonstrations will be given by Dr. R. O. Schuster of New

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York City, who is well known for his post graduate courses and lectures at various colleges and before many organizations. This will be Dr. Schuster's first appearance on the West Coast.

The fee for the three-day course will be $30.00. No veterans contracts can be negotiated for this seminar. An announcement will be mailed shortly to all members of the N.A.C. in the eleven western states inviting them to register. Members outside of this area should contact Dr. O. R. Berger, Dean, California College of Chiropody, 1770 Eddy Street, San Francisco, Calif.

CHIROPODY DEPARTMENT ESTABLISHED BY CEREBRAL PALSY ASSOCIATION

Drs. E. E. Sugarman, D. Geller and J. Shangold, members of the Nassau County Podiatry Society of New York, have been engaged in research and in providing treatment to patients afflicted with cerebral palsy at a clinic sponsored by the Cerebral Palsy Association at Nassau County. These services are under the supervision of Dr. Robert V. Martin, Medical Director of the institution.

According to Mr. Christopher H. Wiemer, Executive Director, the foot problems of cerebral palsy patients have been difficult and vexing, but after twelve months of service by chiropodists many of the patients have shown definite improvement.

The creation of chiropody departments as adjuncts to all diagnostic and treatment centers sponsored by the Cerebral Palsy Association is an excellent objective for our affiliated state societies. We trust that sufficient interest will be taken in such projects so that the departments will eventually be created throughout the country.

WOMAN'S SHOES BLAMED FOR NEAR-AUTO TRAGEDY

Two Massachusetts women came within two feet of plunging off the Charter Oak Bridge, 85 feet above the Connecticut river, Sunday afternoon—and police blame the near-tragedy on a pair of high-heeled wedge-style shoes.

Alice Moore, 23, of Brighton, Mass., and her companion, Marilyn Grabnick, 22, of Roxbury, Mass., were heading eastbound on the left lane of the bridge near the town line of East Hartford, when Miss Moore, owner and driver of the car, alarmed by a swerving car in front of her, veered sharply to the right. Her stylishly-shod feet lost control of the brake and the car rammed-up—and almost over—the retaining abutment, and clung by one wheel two feet from the edge of the bridge.

At the Charter Oak Bridge administration building, where state Policeman Edward Sterniak questioned the two women, Miss Moore and Miss Grabnick appeared only shaken by their brush with death. Their car was not damaged, and after observing Miss Moore's footwear, Officer Sterniak suggested she change to more conventional shoes. He gave her a warning for reckless driving, and the two women set out again for their return trip to Boston.

AP Release, July 8, 1951.

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DEATHS REPORTED

Warren Stirling, M.D.
Philadelphia, Pa.

Dr. Stirling, a former member of the Temple University faculty, passed away on July 8, 1951. He served as professor of anatomy at the Philadelphia institution from 1923 to 1942. He was a veteran of both World Wars.

Joseph Goldwag, Phar. D.
New York, N. Y.

Dr. Goldwag, a former chemistry professor at Long Island University, College of Podiatry, died on July 11, 1951. Dr. Goldwag is survived by his brother, Dr. Harry L. Goldwag.

LEADERSHIP

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The leader relies on his administrative skills to a much greater extent than he does on any of the technical skills which may be associated directly with his work.
—Cecil E. Goode, Personnel, March, 1951.

CONVENTION DATES

(CE-Commercial exhibitors invited)

NATIONAL ASSOCIATION OF CHIROPODISTS
Chicago, Ill., Aug. 16-21, 1951
Drake Hotel (CE)

WISCONSIN ASSOCIATION OF CHIROPODISTS
Milwaukee, Wis., Oct. 6-7, 1951
Wisconsin Hotel (CE)

MISSOURI ASSOCIATION OF CHIROPODISTS
Kansas City, Mo., Oct. 6-7, 1951
President Hotel (CE)

REGION TEN CONVENTION
Kentucky, Tennessee, Alabama, Mississippi
Louisville, Ky., Oct. 6-8, 1951
Kentucky Hotel (CE)

FELLOWS PEDIC RESEARCH SOCIETY CONVENTION
Chicago, Ill., Oct. 20-22, 1951
Sherman Hotel

REGION TWO CONVENTION
Podiatry Society of New York
New York City, Feb. 15-17, 1952
Hotel Astor (CE)

REGION SIX CONVENTION
Nebraska, Missouri, Kansas, Iowa, South Dakota, North Dakota, Minnesota, Colorado
Kansas City, Mo., April 25-27, 1952 (CE)

REGION THREE CONCLAVE
Delaware, Pennsylvania, New Jersey, Maryland
Atlantic City, N. J., April 25-27, 1952
Ambassador Hotel (CE)

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FOR SALE: Well established practice in Kentucky. Two operating chairs, reception room and private office. Priced right. Retiring. Write 604, c/o Dr. William J. Stickel, 3500 14th St., N. W., Washington 10, D. C.

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OTHER BUSINESS interests and health require sale of office and excellent practice in Kentucky. Located in city and drawing territory of 150,000 to 200,000. Diversified industry; oil, coal, tobacco, distilleries, college and manufacturing. Will stay with buyer until spring of 1952 on percentage basis, if desired. Address 650, c/o Dr. Wm. J. Stickel, 3500 14th St., N. W., Washington 10, D. C.

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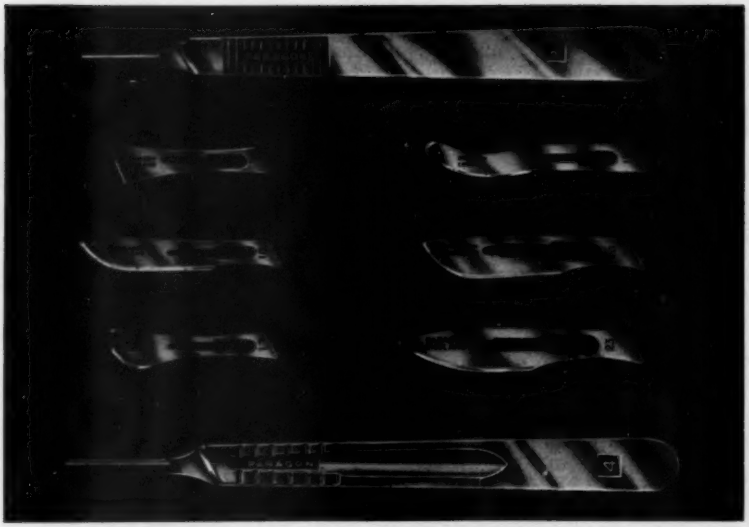

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